Table 4.1

South Florida Water Management District STA 3/4
Test Well Comparison

Well #	Location #	Screened Interval (feet bls)	Discharge Q (gpm)	Drawdown S (feet)	Specific Capacity (gpm/ft)	Transmissivity Theis (gpd/ft)	Transmissivity Mace (1997) (gpd/ft)	Transmissivity Driscoll (1986) (gpd/ft)	Bierschenk % Laminar	Bierschenk Well Efficiency (%)
1	53	35-65	186	4.4	42.3	204,600	104,435	84,545	43.9	73.4
2	59	30-60	191	13.2	14.5	252,120	33,878	28,939	53.8	11.2
3	62	50-80	210	4.4	47.7	224,928	118,624	95,455	24.7	41.2
4	68	40-70	154	16	9.6	203,280	22,082	19,250	51.7	9.8
5	75	55-85	210	6.7	31.3	221,760	75,916	62,687	33.6	28

Table 4.12
Sensitivity Analysis Results

STA 3/4 Location	Seepage Rate (ft^3/day)										
	Baseline	**Scenario 1**	**Scenario 2**	**Scenario 3**	**Scenario 4**	**Scenario 5**	**Scenario 6**	**Scenario 7**	**Scenario 8**	**Scenario 9**	**Scenario 10**
North Perimeter											
Loss From STA 3/4	684,758	688,050	681,568	705,206	663,906	926,777	373,668	671,859	584,992	738,695	351,556
Net Flow North of Supply Canal	1,933,253	1,934,597	1,932,000	2,265,378	1,677,546	2,370,319	1,365,071	3,548,814	1,526,493	6,992,893	982,317
Loss to Regional Flow	355,171	355,678	354,702	407,683	328,016	529,779	150,841	97,872	372,000	(283,538)	205,368
East Perimeter											
Loss From STA 3/4	1,164,390	1,167,990	1,158,529	1,252,259	705,262	1,445,327	772,320	2,152,200	937,980	3,654,892	589,283
Loss to Regional Flow	500,837	494,570	504,268	606,646	449,130	671,599	309,803	624,740	450,117	792,834	275,080
South Perimeter											
Loss From STA 3/4	721,697	724,905	718,231	786,920	665,692	899,584	502,252	1,481,575	560,491	2,553,677	360,685
Loss to Regional Flow	141,698	142,247	141,106	128,196	153,164	221,304	62,371	119,783	142,960	121,134	70,814
West Cell 3 Perimeter											
Loss From STA 3/4	167,806	169,223	166,309	171,390	164,919	213,266	110,404	333,221	128,496	506,181	83,919
South Cell 5 Perimeter											
Loss From STA 3/4	383,683	395,072	376,911	379,180	379,631	478,967	252,445	829,597	281,981	1,148,714	189,711
West Cell 5 Perimeter											
Loss From STA 3/4	361,311	368,334	357,292	358,624	359,667	458,919	237,624	780,415	273,144	1,082,822	179,518
Total Seepage Loss From STA 3/4	3,483,645	3,513,574	3,458,840	3,653,579	2,939,077	4,422,840	2,248,713	6,248,867	2,767,084	9,684,981	1,754,672
Percent Change from Baseline		0.86%	-0.71%	4.88%	-15.63%	26.96%	-35.45%	79.38%	-20.57%	178.01%	-49.63%
Total Loss To Regional Flow	1,910,506	1,925,124	1,900,588	2,051,719	1,834,527	2,573,834	1,123,488	2,785,628	1,648,698	3,368,147	1,004,410
Percent Change from Baseline		0.77%	-0.52%	7.39%	-3.98%	34.72%	-41.19%	45.81%	-13.70%	76.30%	-47.43%

Scenario:

Baseline	Hydrologic Values Determined by APT Simulation
1	Land Conductance Increased 1000% from Baseline
2	Land Conductance Reduced 50% from Baseline
3	Canal Conductance Increased 1000% from Baseline
4	Canal Conductance Reduced 50% from Baseline
5	Horizontal Hydraulic Conductivity Increased 50% from Baseline
6	Horizontal Hydraulic Conductivity Decreased 50% from Baseline
7	Vertical Hydraulic Conductivity Increased 1000% from Baseline
8	Vertical Hydraulic Conductivity Decreased 50% from Baseline
9	Conductance and Hydraulic Terms Increased to Maximum Value Used in Scenarios 1 to 8
10	Conductance and Hydraulic Terms Decreased to Minimum Value Used in Scenarios 1 to 8

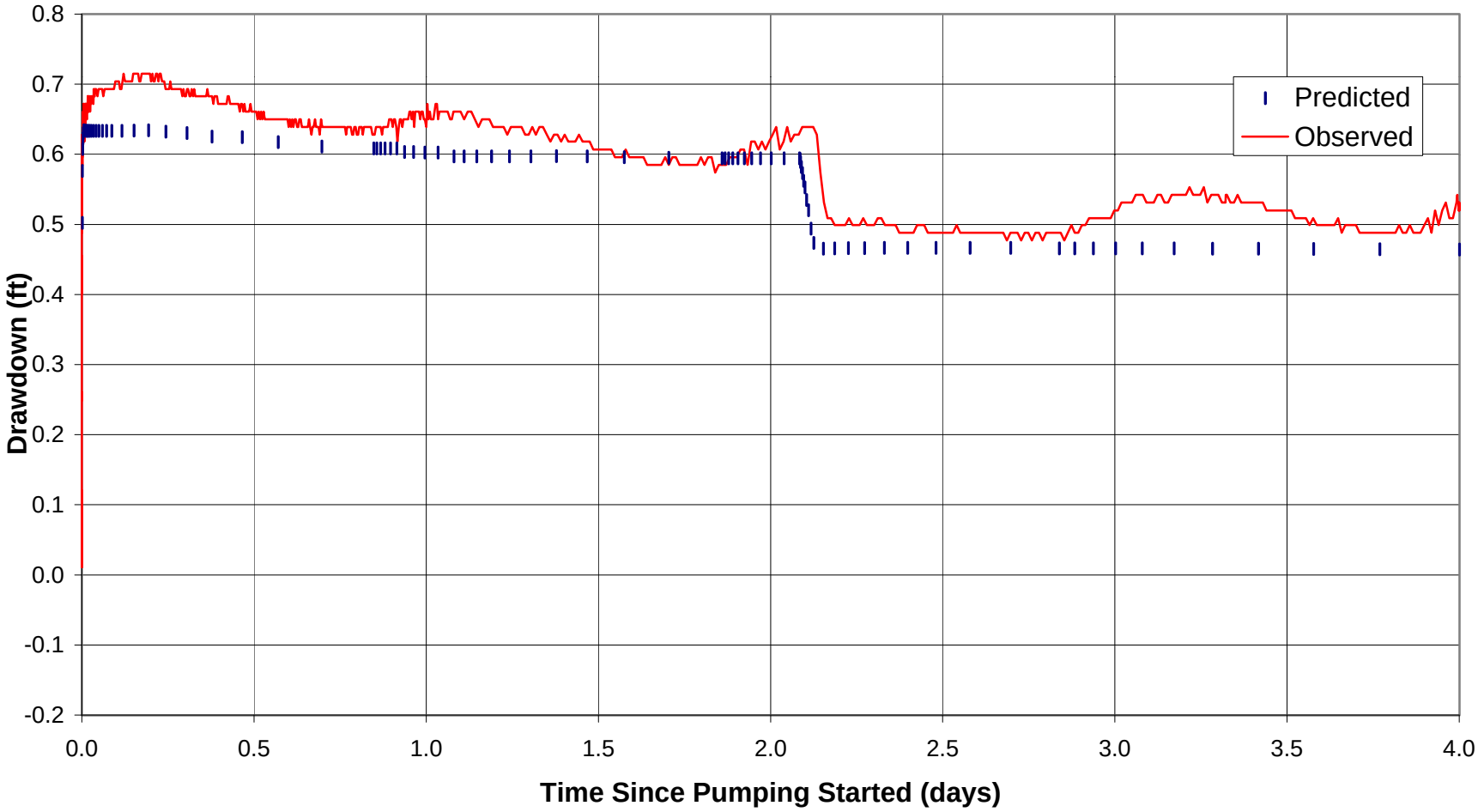

Figure 4.14
Observed and Predicted Drawdown at MW-3D

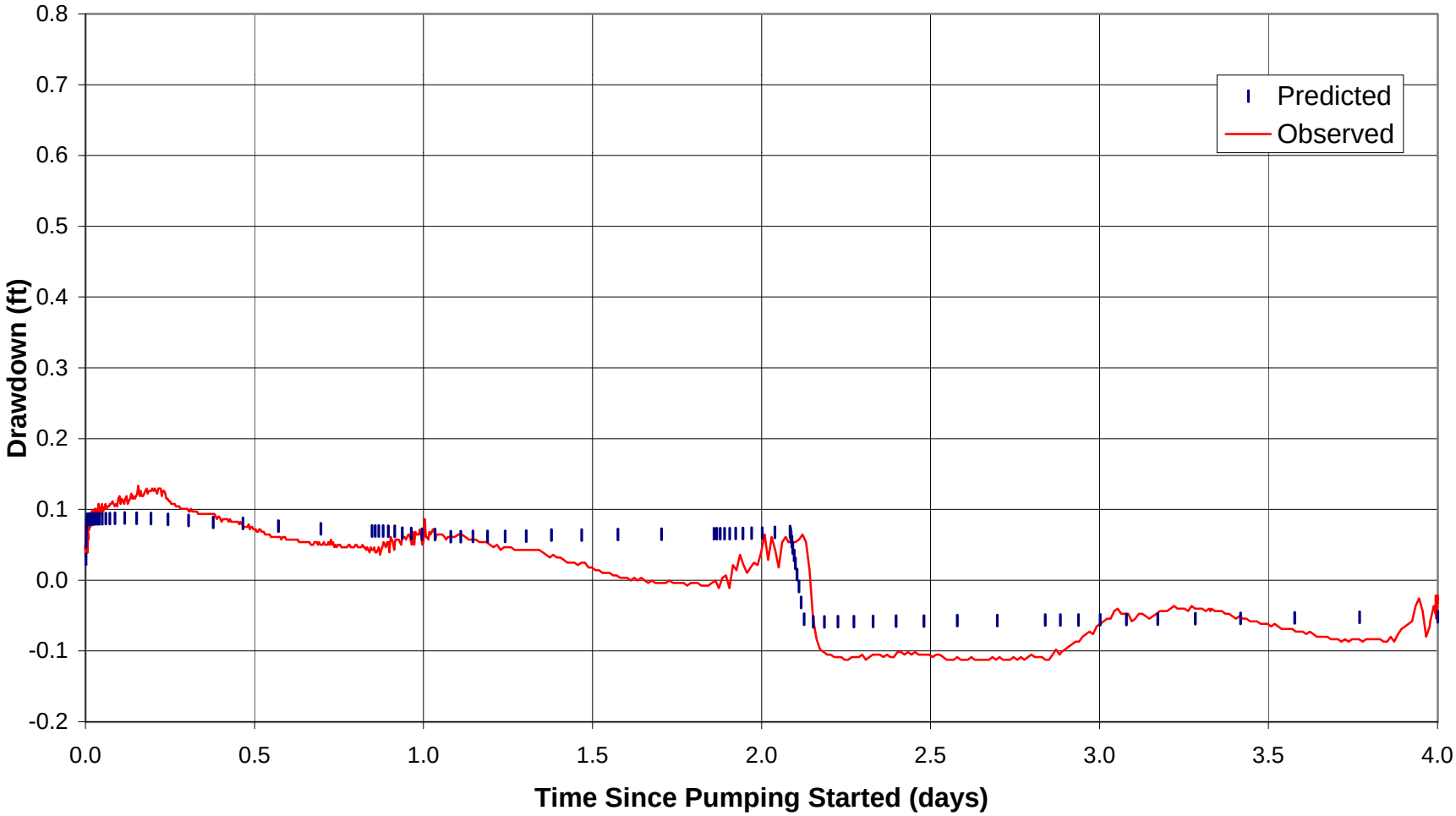

Figure 4.11
Observed and Predicted Drawdown at MW-2S

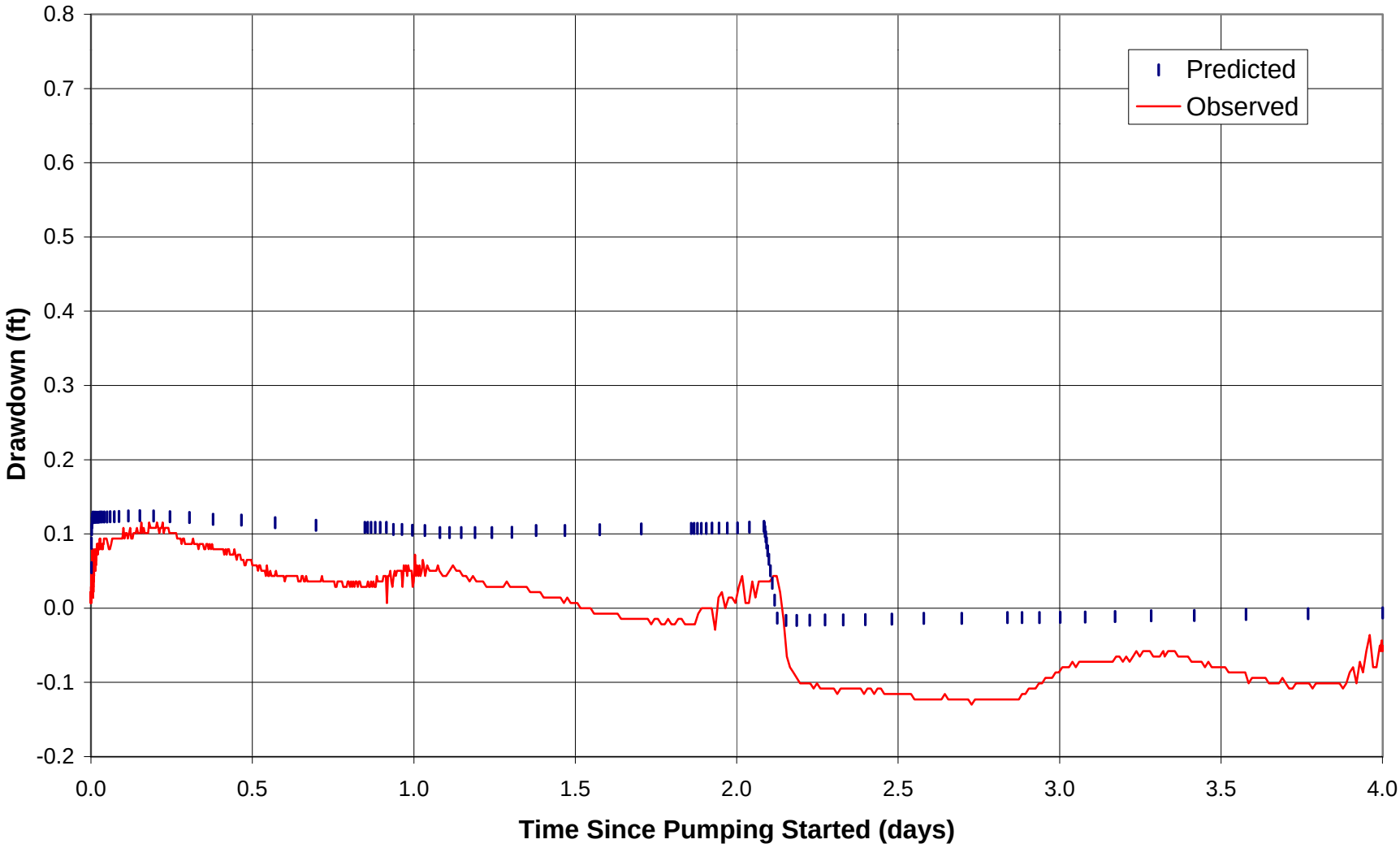

Figure 4.13
Observed and Predicted Drawdown at MW-3S

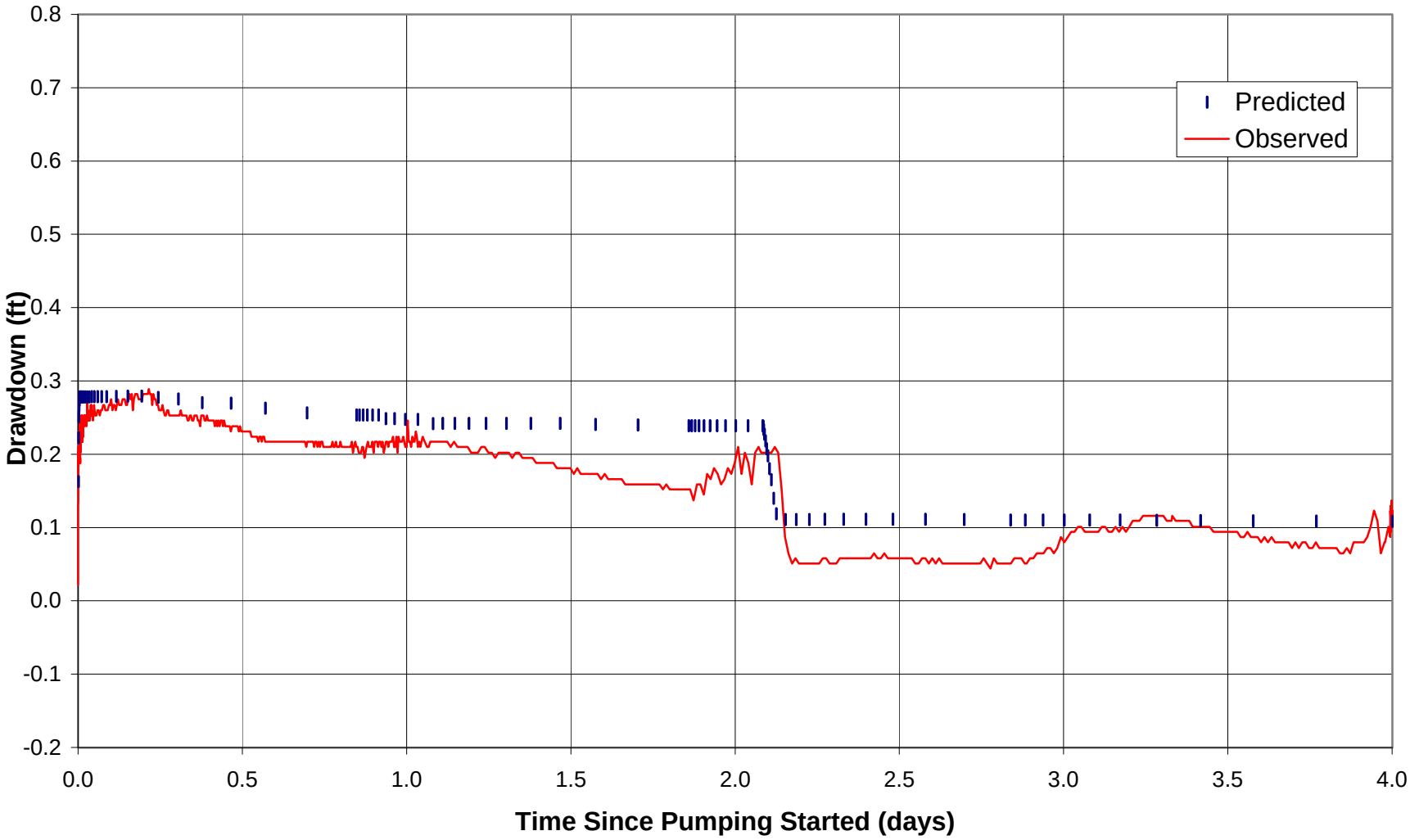

Figure 4.12
Observed and Predicted Drawdown at MW-2D

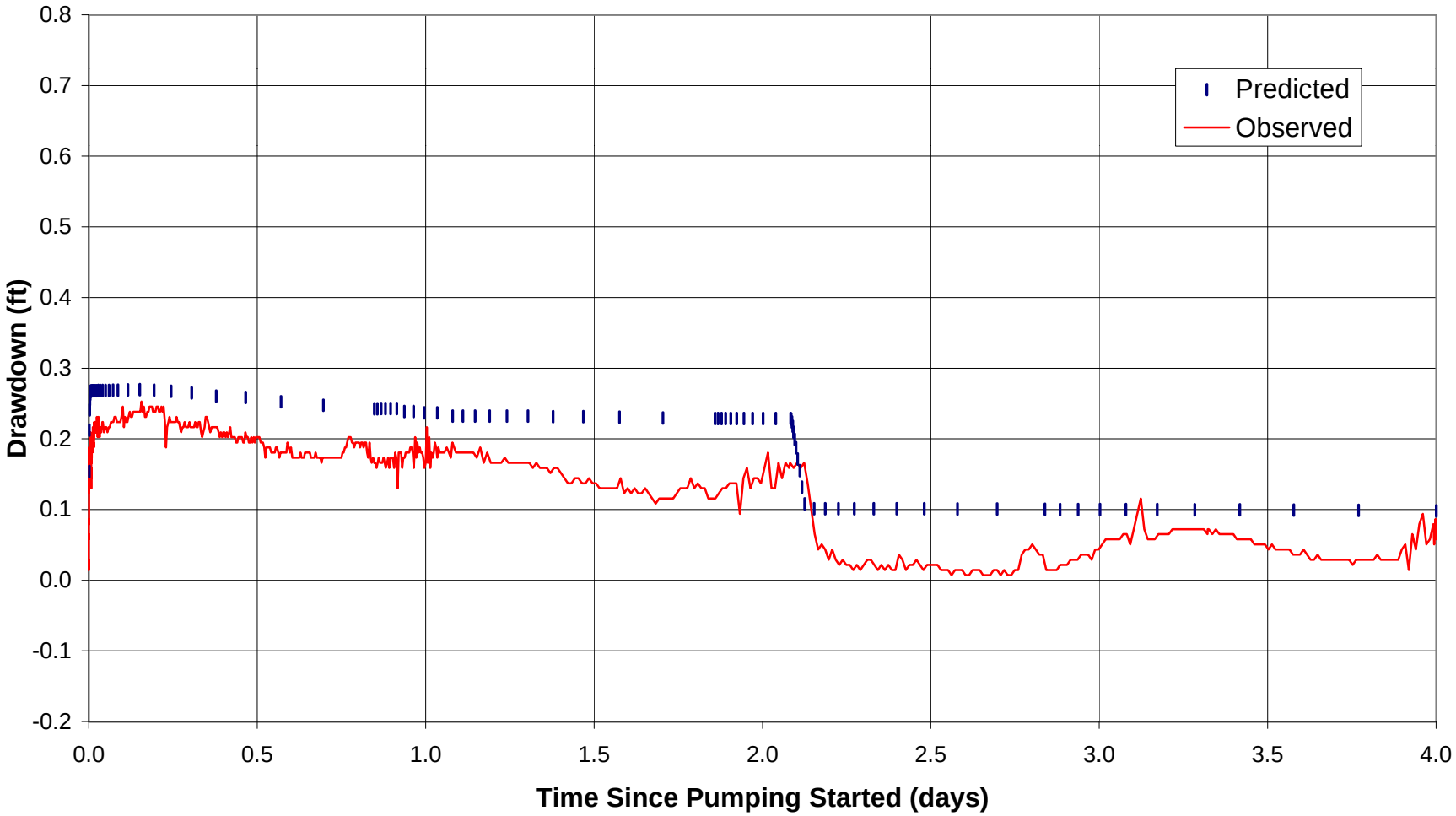

Figure 4.15
Observed and Predicted Drawdown at MW-4D

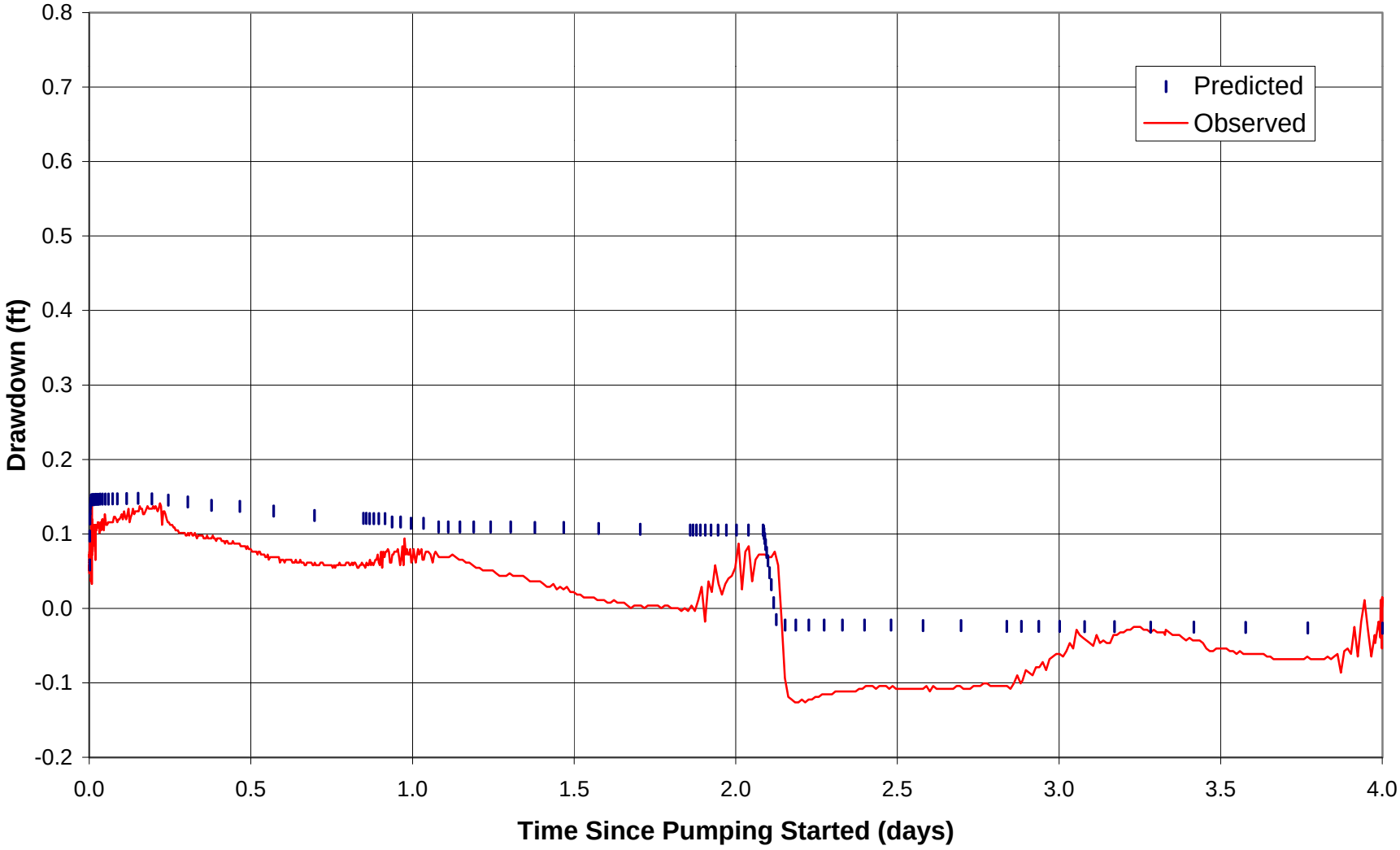

Figure 4.10
Observed and Predicted Drawdown at MW-1D

Table 4.6A
Seepage Results for Scenario A

Supply Canal

Condition	Stage				Supply Canal Loss	Captured by Seepage Collection Canal	Loss to Holey Lands	Loss to Regional Flow	Percent of Seepage Loss Captured by the Seepage Collection Canal	Seepage Springs Between the Supply Canal and Seepage Collection Canal	Peak Water Level (Mounding)	Water Table Increase (1)	Mounding Distance East of Seepage Collection Canal
	Supply Canal	Holey Lands	Farm Lands	Seepage Collection Canal									
	(feet NGVD)				(cubic feet per day per mile of levee)						(feet NGVD)	(feet)	(feet)
Design Max.	16.3	12.0	8.5	7.5	2,667,456	1,532,256	788,832	338,976	57	6,758	10.40	2.90	164
Dry Season	11.0	11.0	7.5	7.5	658,416	662,112	-213,312	209,616	76	-	8.69	1.19	145
Wet Seson	14.0	12.0	7.5	7.5	1,712,832	1,141,008	212,784	359,040	67	-	9.54	2.04	145

Note: Ground surface elevations assumed to be 9.5 feet NGVD.

(1) Water level increase is relative to the Seepage Collection Canal stage.

North Perimeter Cross Section

Condition	Stage				Inflow Canal Loss	Captured by Seepage Collection Canal	Loss From STA 3/4	Loss to Regional Flow	Percent of Seepage Loss Captured by the Seepage Collection Canal	Seepage Springs Between the Supply Canal and Seepage Collection Canal	Peak Water Level (Mounding)	Water Table Increase (1)	Mounding Distance from the Seepage Collection Canal
	Inflow Canal	STA 3/4	Farm Lands	Seepage Collection Canal									
	(feet NGVD)				(cubic feet per day per mile of levee)						(feet NGVD)	(feet)	(feet)
Design Max.	14.9	14.0	8.5	7.5	1,127,808	1,214,928	338,976	247,632	83	3,960	10.10	2.60	168
Dry Season	11.0	11.0	7.5	7.5	472,032	572,880	275,616	174,768	77	-	8.70	1.20	148
Wet Seson	13.5	13.0	7.5	7.5	897,600	955,680	347,424	289,344	77	-	9.46	1.96	148

Note: Ground surface elevations assumed to be 9.5 feet NGVD.

(1) Water level increase is relative to the Seepage Collection Canal stage.

Cell 5 West Perimeter Cross Section

Condition	Stage		Loss From STA 3/4	Loss to Holey Lands
	STA 3/4	Holey Lands		
	(feet NGVD)		(cubic feet per day per mile of levee)	
Design Max.	14.0	12.0	578,688	578,688
Dry Season	11.0	11.0	0	0
Wet Season	13.0	12.0	289,344	289,344

Cell 5 South Perimeter Cross Section

Condition	Stage		Loss From STA 3/4	Loss to Holey Lands
	STA 3/4	Holey Lands		
	(feet NGVD)		(cubic feet per day per mile of levee)	
Design Max.	14.0	12.0	574,464	574,464
Dry Season	11.0	11.0	0	0
Wet Season	13.0	12.0	287,232	287,232

Table 4.6B
Seepage Results for Scenario B

Supply Canal

Condition	Stage				Supply Canal Loss	Captured by Seepage Collection Canal	Loss to Holey Lands	Loss to Regional Flow	Reional Flow from Holey Lands	Percent of Seepage Loss Captured by the Seepage Collection Canal	Peak Water Level (Mounding)	Water Table Increase (1)	Mounding Distance from the Seepage Collection Canal
	Supply Canal	Holey Lands	Farm Lands	Seepage Collection Canal									
	(feet NGVD)				(cubic feet per day per mile of levee)						(feet NGVD)	(feet)	(feet)
Design Max.	16.3	12.0	8.5	7.5	1,226,544	738,672	162,096	364,320	38,544	60	9.52	2.02	350
Dry Season	11.0	11.0	7.5	7.5	361,152	304,656	-	242,352	-185,328	84	8.29	0.79	275
Wet Seson	14.0	12.0	7.5	7.5	829,488	538,032	42,240	372,240	123,024	65	8.78	1.28	275

Note: Ground surface elevations assumed to be 9.5 feet NGVD.

(1) Water level increase is relative to the Seepage Collection Canal stage.

North Perimeter Cross Section

Condition	Stage				Inflow Canal Loss	Captured by Seepage Collection Canal	Loss to STA 3/4	Loss From STA 3/4	Loss to Regional Flow	Percent of Seepage Loss Captured by the Seepage Collection Canal	Peak Water Level (Mounding)	Water Table Increase (1)	Mounding Distance from the Seepage Collection Canal
	Inflow Canal	STA 3/4	Farm Lands	Seepage Collection Canal									
	(feet NGVD)				(cubic feet per day per mile of levee)						(feet NGVD)	(feet)	(feet)
Design Max.	14.9	14.0	8.5	7.5	427,680	337,920	8,448	310,992	392,832	46	9.61	2.11	328
Dry Season	11.0	11.0	7.5	7.5	186,912	154,176	-	217,536	250,272	38	8.36	0.86	278
Wet Seson	13.5	13.0	7.5	7.5	348,480	261,888	3,010	318,384	402,336	39	8.90	1.40	278

Note: Ground surface elevations assumed to be 9.5 feet NGVD.

(1) Water level increase is relative to the Seepage Collection Canal stage.

Cell 5 West Perimeter Cross Section

Condition	Stage		Loss From STA 3/4	Loss to Holey Lands
	STA 3/4	Holey Lands		
	(feet NGVD)		(cubic feet per day per mile of levee)	
Design Max.	14.0	12.0	228,096	228,096
Dry Season	11.0	11.0	0	0
Wet Season	13.0	12.0	114,048	114,048

Cell 5 South Perimeter Cross Section

Condition	Stage		Loss From STA 3/4	Loss to Holey Lands
	STA 3/4	Holey Lands		
	(feet NGVD)		(cubic feet per day per mile of levee)	
Design Max.	14.0	12.0	233,376	233,376
Dry Season	11.0	11.0	0	0
Wet Season	13.0	12.0	116,688	116,688

Table 4.6B (continued)
Seepage Results for Scenario B

East Perimeter Southern Cross Section

Condition	Stage				Loss From No. New River Canal	Captured by Seepage Collection Canal	Loss From STA 3/4	Loss to Regional Flow	Percent of Seepage Loss From the STA Captured by Seepage Collection Canal	Seepage Springs Between the Perimeter Levee and Seepage Collection Canal	Seepage Springs Between the Seepage Collection Canal and No. New River Canal	Seepage Springs East of the No. New River Canal
	No. New River Canal	STA 3/4	Farm Lands	Seepage Collection Canal								
	(feet NGVD)				(cubic feet per day per mile of levee)							
Design Max.	11.5	14.0	7.5	9.5	604,560	661,584	906,576	681,120	72	12,514	55,968	99,792
Dry Season	10.0	11.0	7.5	9.5	251,328	176,352	371,712	422,928	47	3,960	13,411	5,861
Wet Seson	11.0	13.0	7.5	9.5	486,288	499,488	727,584	595,056	68	9,662	41,712	68,006

East Perimeter Northern Cross Section

Condition	Stage				Loss From No. New River Canal	Captured by Seepage Collection Canal	Loss From STA 3/4	Loss to Regional Flow	Percent of Seepage Loss From the STA Captured by Seepage Collection Canal	Seepage Springs Between the Perimeter Levee and Seepage Collection Canal	Seepage Springs Between the Seepage Collection Canal and No. New River Canal	Seepage Springs East of the No. New River Canal
	No. New River Canal	STA 3/4	Farm Lands	Seepage Collection Canal								
	(feet NGVD)				(cubic feet per day per mile of levee)							
Design Max.	11.5	14.0	7.5	9.5	381,744	347,952	638,352	604,032	54	9,134	23,602	35,482
Dry Season	10.0	11.0	7.5	9.5	173,184	81,312	284,064	364,848	28	2,798	5,650	2,904
Wet Seson	11.0	13.0	7.5	9.5	312,048	258,720	520,080	524,304	49	7,022	17,582	24,394

Cell 3 West Perimeter Cross Section

Condition	Stage			Loss From STA 3/4	To Seepage Collection Canal From STA 3/4	Loss from Seepage Collection Canal to the Holey Lands	Loss to Holey Lands	Percent of Seepage Loss Captured by the Seepage Collection Canal
	STA 3/4	Holey Lands	Seepage Collection Canal					
	(feet NGVD)			(cubic feet per day per mile of levee)				
Design Max.	14.0	12.0	13.6	119,328	396	73,814	192,720	-38
Dry Season	11.0	11.0	11.0	0	0	0	0	-
Wet Season	13.0	12.0	12.5	77,246	8,237	9,134	78,144	-1

Table 4.6A (continued)
Seepage Results for Scenario A

East Perimeter Southern Cross Section

Condition	Stage				Loss From No. New River Canal	Captured by Seepage Collection Canal	Loss From STA 3/4	Loss to Regional Flow	Percent of Seepage Loss From the STA Captured by Seepage Collection Canal	Seepage Springs Between the Perimeter Levee and Seepage Collection Canal	Seepage Springs Between the Seepage Collection Canal and No. New River Canal	Seepage Springs East of the No. New River Canal
	No. New River Canal	STA 3/4	Farm Lands	Seepage Collection Canal								
	(feet NGVD)				(cubic feet per day per mile of levee)							
Design Max.	11.5	14.0	7.5	9.5	970,992	1,325,808	1,564,464	581,328	83	28,670	332,640	266,640
Dry Season	10.0	11.0	7.5	9.5	364,320	395,472	543,312	426,096	72	3,802	77,035	-
Wet Seson	11.0	13.0	7.5	9.5	759,792	1,016,928	1,222,848	534,336	82	22,018	248,371	161,674

East Perimeter Northern Cross Section

Condition	Stage				Loss From No. New River Canal	Captured by Seepage Collection Canal	Loss From STA 3/4	Loss to Regional Flow	Percent of Seepage Loss From the STA Captured by Seepage Collection Canal	Seepage Springs Between the Perimeter Levee and Seepage Collection Canal	Seepage Springs Between the Seepage Collection Canal and No. New River Canal	Seepage Springs East of the No. New River Canal
	No. New River Canal	STA 3/4	Farm Lands	Seepage Collection Canal								
	(feet NGVD)				(cubic feet per day per mile of levee)							
Design Max.	11.5	14.0	7.5	9.5	745,536	1,061,808	1,295,712	582,384	80	29,040	215,952	152,434
Dry Season	10.0	11.0	7.5	9.5	308,880	302,702	457,776	408,672	65	8,818	46,358	-
Wet Seson	11.0	13.0	7.5	9.5	595,056	809,952	1,015,872	526,944	78	22,176	159,984	92,400

Cell 3 West Perimeter Cross Section

Condition	Stage			Loss From STA 3/4	To Seepage Collection Canal From STA 3/4	Loss from Seepage Collection Canal to the Holey Lands	Loss to Holey Lands	Percent of Seepage Loss Captured by the Seepage Collection Canal
	STA 3/4	Holey Lands	Seepage Collection Canal					
	(feet NGVD)			(cubic feet per day per mile of levee)				
Design Max.	14.0	12.0	13.6	185,856	-	209,088	395,472	-53
Dry Season	11.0	11.0	11.0	0	0	0	0	-
Wet Season	13.0	12.0	12.5	142,032	16,368	20,592	146,256	-3